

Title (en)  
ION CURRENT DETECTION SYSTEM

Title (de)  
IONENSTROMERKENNUNGSSYSTEM

Title (fr)  
SYSTÈME DE DÉTECTION DE COURANT IONIQUE

Publication  
**EP 3045818 A1 20160720 (EN)**

Application  
**EP 15202745 A 20151224**

Priority  
JP 2015006285 A 20150116

Abstract (en)  
[Objective] To accurately detect ion current generated as a result of combustion in an internal combustion engine. [Means for Solution] An ignition assist device 10 includes a housing 12; a ceramic member 11 disposed in the housing 12 and having a distal end portion 11a exposed from the housing 12; and a heat-generating element 20 and an ion detection electrode 30 which are embedded in the ceramic member 11 in such a manner as to be electrically insulated from each other. The ignition assist device 10 further includes an ion detection terminal portion 31 for applying an ion detection voltage to the ion detection electrode 30, and two heat-generating-element terminal portions 21 and 22 disposed at such positions as to not come into contact with the internal combustion engine and adapted to supply electricity to the heat-generating element 20.

IPC 8 full level  
**F23Q 7/00** (2006.01)

CPC (source: EP)  
**F23Q 7/001** (2013.01); **F23Q 2007/002** (2013.01)

Citation (applicant)  
JP 3605965 B2 20041222

Citation (search report)  
• [X1] EP 0989367 A2 20000329 - DELPHI TECH INC [US]  
• [XA] US 5922229 A 19990713 - KURANO ATSUSHI [JP]  
• [A] US 2007227488 A1 20071004 - GOTOU SHUNSUKE [JP], et al

Cited by  
CN108869139A

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3045818 A1 20160720; EP 3045818 B1 20181003; JP 2016133003 A 20160725; JP 6473003 B2 20190220**

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